

In the Claims:

1. (Currently Amended) An acoustic signal monitoring system, comprising:

a time series analyzer configured to determine and provide a continuous feedback through a user display report about an on/off state of a microphone to a user, including comparing an acoustic signal obtained from the microphone to a threshold value to determine whether the microphone is 'on' or whether the microphone is 'off', said analyzer also enabling gain adjustment to prevent signal clipping or amplifier overloading; and

a parameter adjustment element operating to calculate frequency domain parameters of the acoustic signal obtained from the microphone, said frequency domain parameters providing information about placement of the microphone with respect to an audio source, where said information enables the user to take appropriate actions to enhance operation of an audio system.

2. (Currently Amended) A method for performing a time series analysis of an acoustic signal comprising:

determining information about an on/off state of a microphone comprising the steps of:

comparing said an acoustic signal obtained from the microphone to a threshold value to determine whether the microphone is 'on' or whether the microphone is 'off' ~~the on/off state of said microphone~~; and

continuously providing feedback based on said information, the feedback comprising a report for a user display which indicates whether the microphone is 'on' or 'off'.

3. (Canceled).

4. (Previously presented) The method of claim 2, further comprising:
performing detection of signal clipping.

5-7. (Canceled).

8. (Currently Amended) The acoustic signal monitoring system of claim 1, further comprising:

a frequency transform unit configured to transform ~~incoming~~ the acoustic signal into the frequency domain ~~for calculation in said parameter adjustment element.~~

9. (Canceled).

10. (Currently Amended) The method of claim 2 wherein said step of comparing further comprising:

calculating ~~the~~ a RMS value of said signal; and

comparing said RMS value to a the threshold value to determine the on/off state of said microphone.

11-13. (Canceled).

14. (Currently Amended) An apparatus comprising a computer readable storage medium having executable instructions that enable the computer to:

determine information about an on/off state of a microphone by comparing said an acoustic signal obtained from the microphone to a threshold value to determine whether the microphone is 'on' or whether the microphone is 'off' ~~the on/off state of said microphone~~; and

continuously provide feedback based on said information, the feedback comprising a report for a user display which indicates whether the microphone is 'on' or 'off'.

15. (Currently Amended) The apparatus of claim 14 wherein ~~said a~~ the computer readable storage medium further ~~having~~ comprises executable instructions that enable the computer to:

performing detection of signal clipping.

16. (Currently Amended) The apparatus of claim 14 wherein ~~said~~ the computer readable storage medium ~~having executable instructions that enable the computer to determine information about an on/off state of a microphone by comparing said signal to~~

~~a threshold value to determine the on/off state of said microphone~~ further comprises executable instructions that enable the computer to:

calculate ~~the~~ a RMS value of said signal; and

compare said RMS value to a the threshold value to determine the on/off state of said microphone.

17. (Currently Amended) The acoustic signal monitoring system of claim 1 wherein said time series analyzer is configured to determine said on/off state by comparing a RMS value of the acoustic signal from said microphone to a the threshold value.

18. (Currently Amended) The acoustic signal monitoring system of claim 1 wherein ~~one of said~~ the frequency domain parameters is comprise a frequency domain signal to noise ratio.

19. (New) A product comprising:

a machine readable medium; and

a program encoded on the medium which causes a processor in an acoustic signal monitoring system to:

receive an acoustic signal from a microphone;

analyze time series data obtained from the acoustic signal to determine whether the microphone is 'on' or whether the microphone is 'off';

transform the acoustic signal into a frequency domain signal;

determine undesirable microphone placement by:

determining whether the microphone is too close to a user by detecting an air puff based on the frequency domain signal;

determining a signal-to-noise ratio of the frequency domain signal; and

determining whether the microphone is too far from the user based on the signal-to-noise ratio; and

reporting to a user, through a user display, whether the microphone is too close or too far, and whether the microphone is 'on' or 'off'.

20. (New) The product of claim 19, where reporting includes suggesting an action for the user to take to correct for the undesirable microphone placement.

21. (New) The product of claim 20, where the action is at least one of: 'talk louder', 'move the microphone closer', 'move somewhere less noisy', or 'put on a headset microphone'.
22. (New) The product of claim 19, where the program further causes the processor to:
- determine a RMS value of the acoustic signal; and
 - compare the RMS value to a threshold to determine whether the microphone is 'on' or 'off'.
23. (New) The product of claim 19, where the program further causes the processor to:
- detect clipping of the acoustic signal; and
 - report the clipping to the user through the user display.
24. (New) The product of claim 19, where the processor continuously determines whether the microphone is 'on' or 'off'.
25. (New) The product of claim 19, where the processor continuously determines undesirable microphone placement.
26. (New) The product of claim 19, where the processor continuously determines undesirable microphone placement and whether the microphone is 'on' or 'off'.